

# Vardan Frants Manukyan

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## Research Institute of Physics

Laboratory of Theoretical Physics

Senior researcher

## Education

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| <b>Institution</b> | Yerevan State University |
| <b>Faculty</b>     | Physics                  |
| <b>Date</b>        | 1989 - 1991              |
| <b>Degree name</b> | Qualified specialist     |

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## Scientific Rank/degree

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| <b>Institution</b> | SCC                           |
| <b>Date</b>        | 2014                          |
| <b>Degree name</b> | Associate professor           |
| <b>Specialty</b>   | Physico-mathematical sciences |

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| <b>Institution</b>           | Institute of Mechanics and Yerevan State University  |
| <b>Date</b>                  | 1998   |
| <b>Degree name</b>           | Candidate  |
| <b>Specialty</b>             | Physico-mathematical sciences  |
| <b>Scientific Supervisor</b> | Belubekyan Mels  |
| <b>Research Topic</b>        | The influence of moment stresses and a layered structure on the propagation of localized shear waves |

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## Language skills

Հայերեն English Русский

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## Work experience

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| <b>Institution</b>    | Yerevan State University |
| <b>Period of time</b> | 2022 till now            |
| <b>Rank/degree</b>    | Senior researcher        |

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## Publications

Article

**Determining the centres of mass of a circular arc and a circular sector using the principle of virtual work**

Vardan Manukyan, Gagik Nikoghosyan

Physics Education 2023 045004

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*Article*

**Electromagnetic vacuum stresses and energy fluxes induced by a cosmic string in de Sitter spacetime**

A.A. Saharyan, V.F. Manukyan, V. Kh. Kotanjyan, A. A. Grigoryan

International Journal of Modern Physics D 2023 2350042

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*Article*

**Fano resonance model for the processes of photoionization of two-well heterostructures in a transverse electric field**

G. Nikoghosyan, H. S. Nikoghosyan, V. F. Manukyan, S. L. Harutyunyan

Physica E: Low-dimensional Systems and Nanostructures 2021 114587

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*Article*

**Non-Monotone Dispersion of Carriers in Size-Quantized Nanostructures with Violated Symmetries**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 345 - 353

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*Article*

**Effect of Self-Induced Transparency in a Massive of Spherical Quantum Dots Under the Conditions of Strong Dimensional Quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, V. F. Manukyan, S. L. Harutyunyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 272–281

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*Article*

**Quantum Model of a Trapezoidal Limiting Potential Profile in a Spherical Nanocrystal**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 345–350

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*Article*

**Coherent bleaching of the medium with Raman scattering under conditions of strong size quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Physica B: Condensed Matter 2019 411710

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*Article*

**The phenomenon of nonstationary nutation in the system of two-level quantum wells of a periodic superlattice with strong magnetic quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, V F Manukyan

Journal of Physics: Conference Series 2019 055004

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*Article*

**Electromagnetic vacuum densities induced by a cosmic string**

A. A. Saharian, V. F. Manukyan, N. A. Saharyan

Particles 2018 175-193

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*Article*

**Electromagnetic vacuum fluctuations around a cosmic string in de Sitter spacetime**

A. A. Saharian, V. F. Manukyan, N. A. Saharyan

European Physical Journal C 2017 478, 13

<http://link.springer.com/journal/10052>

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*Article*

**Electromagnetic Casimir densities for a cylindrical shell on de Sitter space**

A.A. Saharian, V.F. Manukyan, N.A. Saharyan

International Journal of Modern Physics A 2016 1650183-29

<http://www.worldscientific.com/worldscinet/ijmpa>

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*Article*

**Scalar Casimir densities induced by a cylindrical shell in de Sitter spacetime**

A. A. Saharian, V. F. Manukyan

Classical and Quantum Gravity 2015 025009,23

<http://iopscience.iop.org/journal/0264-9381>

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*Conference*

**Electromagnetic Casimir densities for a cylindrical boundary in de Sitter spacetime**

V. F. Manukyan, A. A. Saharian

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